SUBJECT INDEX

Vol. 130B, Nos. 1–4

A2B5, 313
Acclimation, 365, 419
Acharan sulfate, 513
Achatina fulica, 513
Acid- and heat-stability, 117
Actin, 281
α-Actin cDNA, 13
Acyl-CoA, 105
Acyltransferase, 105
Adipocytes, 105
Adrenal androgen, 359
Aging, 461
Agonist, 427
Air sacs, 299
Airsacculitis, 299
Allometry, 339
Allozyme, 75
Allozymes, 181
Amino acid analysis, 271
Amino acid composition, 117
Amino acid sequence, 83
Amino acids, 237
Amphibia, 181
Annelida, 419
Anoxia tolerance, 565
Antagonist, 427
Antibodies, 155
Antibody, 385
Anticoagulant, 501
Aphelenchoides composticola, 135
Aphelenchus avenae, 135
Aplysia californica, 461
Apolipoprotein, 227
Apoptosis mechanism, 411
Ara macao, 57
Arginine metabolism, 585
Aroma, 33
D-Aspartate, 493
L-Aspartate, 493
Azido cyclic AMP, 217

Behavioral phenotypes, 521
bHLH proteins, 1
Bile, 237
Binding assay, 427
Bioassay, 579
Biogenesis, 57
Bird's plumage, 57
Bivalve, 493
Bombyx mori, 393
Bos taurus, 105
Bovine mammary gland, 547
Brain, 191

C-series gangliosides, 313
Ca^{2+} ATPase, 323
Calmodulin-binding site, 479
Camel tick *Hyalomma dromedarii*, 501
L-Carnitine, 411
Cathepsin B, 393
cDNA, 207, 467
cDNA cloning, 83
Channel arrest, 435
Charr, 257
Chicken, 579
Chickens, 299
Cholesterol, 145
Cholesteryl ester transfer protein activity, 145
Cholinergic neurons, 521
Cockroach, 537
Coelocanth, 385
Cold hardiness, 365
Collagen expression, 23
Collagen synthesis, 23
Color, 57
Compensatory changes in enzymes, 585
Composition, 257
Connexin 43, 43
Corticosterone, 323
Cortisol, 323
Crayfish, 565
Cross-species reactivity, 579
Crustacea, 75
Cryoprotection, 365
Cuticular lipids, 349
Cyclic AMP, 217
Cyclic AMP-binding protein, 217
Cyclic AMP-dependent protein kinase, 217
Cyclophilin, 281
Cysteine proteinase, 393
Cytochrome *c*, 411

D1, 461
D2, 461
D3, 461
D4, 461
Dehydroepiandrosterone, 23, 359
Density gradient, 227
Δ6-desaturase, 83, 257
Development, 191, 339
Diacylglycerol, 359
Diacylglycerol, 105
Diapause, 365
Dietary fat, 145, 401
Digestive enzymes, 331
Docosahexaenoic, 291
Dopamine, 461, 559
Dopamine receptor density, 461
Dopamine receptor subtypes, 461
DRIP, 199
Drosophila, 521

E. coli, 299
Echinodermata, 479
ECP, 199
Embryo, 191
Energy metabolism, 419
English sole, 385
Enzyme, 251, 339
Enzyme inhibition, 155
Enzyme purification, 375
Enzymes, 419
Eriocheir sinensis, 95
Estrogen, 547
ET-18-OCH^3, 537
Evolution, 1
Exchanger, 191
Expression, 467
Extracellular products, 199
Eye lenses, 313

Factor Xa inhibitor, 501
Fat body, 537
Fatty acid, 105, 135
Fatty acid composition, 95
Fatty acid compositions, 33
Fibroblast, 23
Fish, 313, 385
Fish nutrition, 83
Follicular development, 43
Free radicals, 559
Fucosidase, 375
Fungal-feeding nematode, 135
Fusarium oxysporum, 135

Gal4-UAS system, 521
Gamma (γ)-linolenic acid, 401
Gangliosides, 313
Gap junctions, 43
GAPDH, 281
Gene duplication, 1
Genetic disease, 251
Genomic DNA, 169
Genomic relationship, 579
Gilthead sea bream (*Sparus aurata*), 13
Globin, 207
Glucocorticoids, 323
Glucose metabolism, 401
Glucose uptake, 359
Glucose-regulated protein, 547
Glutamate, 23
Glutamine, 23
Glycogen phosphorylase, 537
Glycosidase, 375
Granules, 513
Granulosa cells, 43
Guaiacol, 559

Harvester ants, 349
Head-to-head, 207
Heart, 191
Hemocyte, 393
Heparinase, 513
Hepatic extraction, 237
Hepatic portal vein, 237
Hepatic triaglycerol lipase, 145
Hepatic vein, 237
Hepatocyte, 385
Hepatocytes, 257
Hepatopancreas, 117, 565
Histidine motifs, 467
HMG proteins, 271
Housekeeping, 281
HPLC chromatography, 271

Human breast adenocarcinomas, 271
Hummingbird, 291
Hydroperoxides, 33, 559
2-Hydroxy-4-methylthio butanoic acid, 237
Hynobiidae, 181
Hynobius nebulosus, 181
Hynobius tokyoensis, 181
Hyoxic brain, 435
Hypertrehalosemic hormone, 537
Hypometabolism, 435
Hypoxia inducible factor 1 (HIF-1), 435
Hypoxia sensing, 435
Hypoxic hepatocyte, 435

Inhibitory specificity, 117
Innate immunity, 299
Inositol trisphosphate, 537
Insulin, 401
Interaction with keratin, 57
Interferon-γ, 579
Intramuscular fat, 105
Invariant control, 281
Invertebrate, 493
Isoelectric point, 65
Isoform, 191
Isolated adipocytes, 401
Isolation, 117
Isolation of P1, 271

Japan, 181
Jasus edwardsii, 339

Kala-azar, 217
Kidney, 207
Kinetics, 65

Lachesis muta, 155
Lactation, 547
Lectins, 299
Leishmania, 217
Lipid class, 95
Lipid concentration, 95
Lipid metabolism, 83
Lipid peroxidation, 559
Lipopolysaccharide, 299
Lipoprotein, 227
Lipoprotein lipase, 145
Lipoproteins, 145
Liposomes, 559
Liver, 251
Liver, 385
Lobster, 339
Localization, 513
Long chain fatty acid, 411
Lower vertebrates, 1

α-Macroglobulins, 155
Macrophages, 579
Macrophthalmus, 75
Macrophthalmus banzai, 75
Macrophthalmus japonicus, 75
Marine invertebrate, 117
Mass spectrometry, 349
Maturation, 95
Medaka, 385
Membrane composition, 419
Membrane fluidity, 419
Membrane permeability transition, 411
Mesomycetozoa, 199
Metabolic control, 565
Metabolic disease, 251
Metabolism, 339
Metalloprotein tetramer, 207
Metalloproteinases, 155
Metamorphosis, 393
Methionine, 237
1-Methyladenine, 427
[Methyl-^{3}H]choline, 359
Methyl-branched hydrocarbons, 349
Milkfish, 467
Mink, 251
Mitochondria, 291, 411, 419
Mitochondrial biogenesis, 435
Mojave toxin, 169
Mold oil, 401
Molecular cloning, 547
Molecular weight, 65
Mollusc, 313
Molting, 331
Mouse, 191
mRNA and protein levels, 547
Mucin, 375
Mucus, 513
Muscle, 565
Mutalysins, 155
Myogenic induction, 1
Myogenic regulatory factors, 1
Myosin, 1
Myotome, 1
N-Methyl-D-aspartate, 493

N-terminal sequence, 65
N1-substituted adenine, 427
Na^+–K^+ ATPase, 323
Na^+,K^+-ATPase, 521
NCX, 191
Nephrectomy, 585
Neutralization, 579
Nitric oxide (NO), 479
Nitric oxide induction, 579
Nitric oxide synthase (NOS), 479
Non-genomic action, 323
Non-mammalian, 479
Nucleotide sequence, 547
Nucleotide sequencing, 169
Nymphs, 501

O-Polysaccharides, 299
Octopamine, 537
Octopus, 313
Ocypodid crabs, 75
Oligochaeta, 419
Oligosaccharide, 375
Omega-3 fatty acids, 291
Oocyte maturation, 427
Oreochromis mossambicus, 323
Ornithine aminotransferase, 585
Ovary, 43
Overwintering, 365
Oxidative phosphorylation, 291

P1 protein, 271
Parrots, 57
PCR, 169, 207
Perkinsus marinus, 199
Peroxidative activity, 559
Phosphatidylcholine, 95
[^{3}H]phosphatidylethanol, 359
Phospholipase D, 359
Phospholipid, 33
Phospholipid fatty acids, 135
Phospholipids, 291
Phosphorylation of P1, 271
Phyllosome, 339
Phylogenetic analysis, 479
Phylogenetic relationship, 467
Phylogenetic tree, 83
Phylogeny, 75, 313
Pigments, 57
Plasma, 33, 237
Pleoticus muelleri, 331
Polymerase chain reaction (PCR), 467
Polyunsaturated fatty acid, 95
Polyunsaturated fatty acids (PUFA), 257
Ponies, 145
Porcine ovary, 43
Preferential exclusion of solutes, 365
Prepubertal ovarian development, 43
Progesterone, 547
Prolidase activity, 23
Proline synthesis, 585
Promastigote, 217
Proteases, 199, 331
Protein digestion, 1
Protein kinase A, 565
Protein phosphatase, 565
Protein synthesis, 435
Protozoan, 199
Pseudoperkinsus tapetis, 199
Puerulus, 339
Purification, 65
Pyridyl amination, 375
Pyrroline-5-carboxylate, 23

Rainbow trout, 83, 385
Rapid action, 323
Rapid amplification of cDNA ends (RACE), 467
Rat, 401
Rat adipocytes, 359
Rattlesnake, 291
Receptor, 427
Red blood cell, 33
Regulatory subunit of cyclic AMP-dependent protein kinase, 217
Renal hypertrophy, 585
Reprolysin, 155
Retinoblastoma, 385
Reversible phosphorylation, 565
Rhizoctonia solani, 135
rRNA, 281

Salmon, 257
Salmonids, 257
Scup (*Stenotomus chrysops*), 479
Sea urchin (*Arbacia punctulata*), 479
Seasonal variation, 33
Section analysis, 513
SERCA, 291
Skeletal muscle, 13
Snail, 513
Snake venom, 155
Sodium pump, 521
Spike arrest, 435

Squid, 117, 313
Starfish, 427
Stearoyl-CoA desaturase, 467
Streptomyces sp. OH11242, 375
Substrate specificity, 375
Subunit, 65
Supercooling, 365
Surfactant proteins, 299
Sweet smelt, 33

Taxonomic status, 181
Taxonomy, 75
Teleost, 13, 83, 479
Temperature, 419
Todarodes pacificus, 117
Transamidinase, 585
Transgenic animals, 521
Trehalose, 537
Triacyglycerols, 145
Triacylglycerol, 95
Triacylglycerol biosynthesis, 105
Trichoderma sp, 135
Triglycerides, 291
Triiodothyronine, 411
Trout, 257
Trout hemoglobin, 559
Trypsin inhibitor, 117
Tumor, 385
Turkey, 227, 579
Turkeys, 299
Tyrosine, 251
Tyrosine aminotransferase, 251
Tyrosinemia, 251

Urea cycle enzymes, 585
Urodela, 181

Variation, 95
Visceral leishmaniasis, 217

Western immunoblotting, 271
White adipose tissue, 401

Yellowtail, 207

Zebrafish, 1

AUTHOR INDEX

Vol. 130B, Nos. 1–4

Ai, ChunXiang., 95
Aleporou-Marinou, V., 271
Arita, K., 411
Austic, R.E., 65

Bailey, D.R.C., 105
Banerjee, C., 217
Banuelas-Ornelas, J.J., 169
Beers, K., 237
Bell, J.G., 257
Bergot, P., 83
Beynen, A.C., 145
Blair, J.B., 385
Bottje, W., 237
Brenna, J.T., 291

Camino Ordás, M., 199
Canario, A.V.M., 13
Caulini, G.Carlo., 559
Celentano, G., 57
Chandhoke, V., 461
Chen, J., 135
Chen, LiQiao., 95
Choi, H.Seok., 513
Cowan, K.J., 565
Cox, R.L., 479
crockett, E.L., 419

Dagda, R.K., 169
Deng, J., 105
Dibner, J.J., 237
Dick, J.R., 257
Diniz, C.R., 155
do Carmo Zerbo, A., 279
Dougherty, B.E., 419

Faisal, M., 199
Falcioni, G., 559
Fedeli, D., 559
Fenucci, J.L., 331
Fernández Gimenez, A.V., 331
Ferris, H., 135
Figueras, A., 199
Flinn, J.M., 461
Fujimoto, Y., 547

Gabbianelli, R., 559
García-Carreño, F.L., 331
Garcha, K., 537
Gasanov, S.E., 169
Geelen, S.N.J., 145
Ghazy, A.-H.M., 501
Gordon, D.M., 349
Gorham, J.R., 251
Goso, Y., 375
Graham, K.J., 135
Guillaumin, S., 227

Hayashi, K., 117
Hayes, M.A., 299
Heck, D.E., 479
Heneine, L.G.D., 155
Hermier, D., 227
Hickey, A.J.R., 339
Hochachka, P.W., 435
Holt, R., 461
Hoover, G.J., 299
Horii, T., 75
Hotta, K., 375
Hsieh, M.K., 579
Hsieh, S.L., 467
Hunter, D.B., 299

Ibrahim, M.A., 501
Ide, T., 401
Imai, Y., 191
Imanari, T., 513
Infante, J.P., 291
Ishihara, K., 375
Ishisaka, R., 411
Ishizawa, M., 359
Ishizuka, T., 359

Jeffs, A.G., 339
Jeong, J., 513
Jiang, H., 95

Kaewsrithong, J., 33
Kajita, K., 359
Kanno, T., 411
Kanoh, Y., 359
Karna, E., 23
Kashiwagi, A., 411
Kaushik, S., 83
Kawamoto, S., 493
Kawasaki, H., 393
Kazala, E.C., 105
Kera, Y., 493
Khalil, M.I., 501
Kille, P., 281
Kim, Y.Shik., 513
Kimura, M., 359
Kirwan, R.C., 291
Kishimura, H., 117
Kitaura, J., 75
Koštál, V., 365
Komuro, I., 191
Kosiishi, I., 513
Kuo, C.M., 467
Kuro-o, M., 191
Kushiro, M., 401

Lúcia, R., 279
Laroche, A., 105
Laskin, J.D., 479
Lee, V.H., 43
Lemmens, A.G., 145
Lessire, M., 227
Liao, W.L., 467
Lieb, C.S., 169
Lin, T.L., 579
Linhardt, R.J., 513
Loa, C.C., 579
Lozeman, F.J., 105
Lu, J., 339
Lutz, P.L., 435

MacGlaughlin, P., 257
Maekawa, M., 427
Magalhaes, A., 155
Maharem, T.M., 501
Mamuris, Z., 13
Mariano, T., 479
Matsui, M., 181
McGhee, F., 257
McLaughlin, S., 199
McNamer, A.N., 419
McNew, R., 237
Melton, C.M., 43
Middleton, C.K., 105
Milliat, F., 227
Miltyk, W., 23
Mir, P.S., 105
Misawa, Y., 181
Mita, M., 427
Miura, A., 359
Miyata, M., 207
Mossab, A., 227
Moura, M.B., 155
Moutou, K.A., 13
Muneta, Y., 513

Nabeshima, Y.-i., 191
Nagahama, Y., 427
Nakata, K., 547
Natesan, S., 585
Navarrete del Toro, M.A., 331
Nelson, D.R., 349
Nishida, M., 75
Nishikawa, K., 181
Novoa, B., 199

Ohshima, T., 33
Oikawa, S., 547
Okamoto, K., 207
Olortegui, C.C., 155
Oommen, O.V., 323
Ostrander, G.K., 385

Pałka, J.A., 23
Panserat, S., 83
Patargias, T., 271
Patiño, R., 43
Photopoulou, A., 271
Pineda, G., 169
Pini, E., 57
Power, D.M., 13
Prieur, D.J., 251

Rael, E.D., 169
Rahman, Md.S., 597
Reddy, S.R.Rami., 585
Regina Brochetto-Braga, M., 279
Rendon, A., 43
Rescan, P.Y. 1
Rotchell, J.M., 385

Saeki, H., 117
Saito, M., 313
Saito, M., 427
Sakai, M., 207
Salvaterra, P.M., 521

PII: S1096-4959(01)00480-8

Sanchez, E.F., 155
Saneyoshi, M., 427
Sarkar, D., 217
Scoggins, B., 385
Scow, K.M., 135
Seiliez, I., 83
Shibata, K., 493
Silva de Moraes, M., 279
Šimek, P., 365
Šlachta, M., 365
Socorro, S., 13
Song, Z., 237
Southall, M., 461
Souza, C.T., 155
Stürzenbaum, S.R., 281
Steele, J.E., 537
Stegeman, J.J., 479
Storey, K.B., 565
Stradi, R., 57
Sugawara, S., 375
Sugiyama, K., 313
Sun, B., 521
Sun, D., 537
Sunny, F.,323

Takahashi, S., 493
Takahashi, Y., 401
Takano, K., 597
Takemura, A., 597
Tanabe, S., 181
Tarui, A., 493
Terpstra, A.H.M., 145
Tiano, L., 559
Tissot, M., 349
Tocher, D.R., 257
Todoroki, N., 493
Toida, T., 513

Uchida, I., 547
Ushio, H., 33
Utsumi, K., 411
Utsumi, T., 411

Vázquez-Añón, M., 237
Verhaege, C., 105

Wada, K., 75
Wakimoto, K., 191
Wang, W., 521
Watanabe, A., 547
Weebadda, W.K.C., 299
Wells, R.M.G., 339
Wen, XiaoBo., 95
Wensing, Th., 145
Weselake, R.J., 105
Whisnant, S., 43
Wołczyński, S., 23
Wood, R.K., 251
Wooldridge, B.J., 169
Wozniak, M., 559
Wu, C.C., 579
Wu, S.Ji., 513

Xu, P., 521
Xu, Y.-S., 393

Yamada, R.-H., 493
Yanaka, N., 191
Yasuda, K., 359
Yoshikuni, M., 427
Yoshizaki, G., 43
Yuan, J.-H., 65

Zaunbrecher, G.M., 43
Zhou, Z., 95